

Appl. No. 10/716,797  
Arndt. dated April 3, 2005  
Reply to Office Action of November 1, 2005

**REMARKS/ARGUMENTS**

**A. General:**

1. Claims 4 and 23 have been amended. Claim 4 has been rewritten in independent form including all limitations of the base claim and any intervening claims and, per the Examiner, is now allowable. Claim 23 has been amended in accordance with the Examiner's suggestion to overcome the non-statutory subject matter rejection.
2. Claim 22 has been canceled.
3. Claims 1 - 21 and 23 remain in the application.

**B. §101 Rejection:**

The Examiner has rejected claims 22 and 23 under 35 USC §101, as being directed to non-statutory subject matter for reciting "a computer program" alone.

Applicants have canceled claim 22 thereby obviating this rejection as to it.

Applicants have amended claim 23, as noted above, in accordance with the Examiner's suggestion (citing MPEP 2106) thereby obviating this rejection.

**C. §103 Rejections:**

1. The Examiner has rejected claims 1 - 3, 5 - 13, 16, and 17 under 35 USC §103(a) as being unpatentable over Dewaele (US 5,651,042) in view of Kuhn et al (US 5,982,916).

Applicants' invention including Applicants' unique "hill-climbing" method is described in the specification, paragraphs [0056] and [0061] – [0064] with reference to Figs. 2A, 3 and 4, and in even more detail in paragraphs [0065] - [0073]. This "hill climbing" method is recited in all of the claims.

The Examiner in columns 8 - 11 of Dewaele has found words such as edge, edge-points, segment, and label which are used by Applicants as well but, despite the use of similar terms, Applicants do not see how their method is at all like Dewaele's method and, with all due respect, Applicants submit that the Examiner has not established that they are similar. Applicants' claim 1 recites a plurality of multidimensional rays originating at a local

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intensity extreme and identifying an edge point corresponding to a maximum edge metric on each ray – Applicants do not see where this is disclosed by Dewaele.

The Examiner cites part of Dewaele's edge detection technique using edge-thinning, connectivity analysis, and linear regression all of which merely points up the fact that Dewaele's methods are nothing like Applicants' whose invention was intended to be simpler and, hence, faster than a method such as Dewaele's. In short, Dewaele is inapposite and cannot form the basis of a rejection under §103.

The Examiner cites Kuhn et al. as disclosing labeling every point on each said ray and labeling unlabeled pixels based on intensity and distance criteria. Again, with due respect, Kuhn et al. in their abstract state that their invention is a method involving the use of histograms to determine a threshold that is used to generate a mask to detect a desired region of interest. This is unlike anything Applicants are doing and, therefore, like Dewaele, Kuhn et al. is inapposite.

For the reason cited above, Dewaele and Kuhn et al. in combination do not render obvious Applicants' invention as recited in claim 1 or, therefore, claims 2 - 3, 5 - 13, and 16 - 17 which depend therefrom.

2. The Examiner has rejected claims 14 and 19 - 23 under 35 USC §103(a) as being unpatentable over Dewaele (US 5,651,042) and Kuhn et al. (US 5,982,916) as applied to claim 1 and further in view of Bamberger et al. (US 5,854,851).

Claim 22 has been canceled thereby obviating this rejection as to it.

Bamberger et al., like Dewaele and Kuhn et al., discloses a more complex and completely different method (see Figs. 7A and 7B) than Applicants' invention. Applicants respectfully submit that the labeling method disclosed in Bamberger et al. at col. 22, lines 5 - 26, i.e., "zone of influence," is not that which is claimed by Applicants in their independent claims 1, 4, 19, and 23 (labeling an unlabeled point if adjacent to a labeled point and the unlabeled point has more extreme intensity and is closer to the local extreme than the labeled point) – at least the Examiner has not explained how they are similar.

Based on the fact that Dewaele, Kuhn et al., and Bamberger et al. disclose the types of complex methods that Applicants' simpler invention was intended to improve upon and that none of the references disclose the specific elements as claimed in all independent claims 1, 4, 19, and 23, Applicants submit that the references in combination cannot render obvious claims 14, 19 - 21, and 23.

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3. The Examiner has rejected claims 15 and 18 under 35 USC §103(a) as being unpatentable over Dewaele (US 5,561,042) and Bamberger et al. (US 5,854,851) as applied to claim 1 and further in view of Weiss et al. (US 5,740,266).

Applicants respectfully submit that because claims 15 and 18 ultimately depend from claim 1, neither claim is rendered obvious by the cited references for the reasons stated in Applicants' response above to the Examiner's other rejections under 35 USC 103(a).

Furthermore, Applicants have reviewed the Examiners' specific cites to Weiss et al. set forth in his Office action and, quite frankly, do not see how the cites are pertinent to the rejected claims. Finally, overall, as with the other cited references, Weiss et al. is completely unlike Applicants' invention and would not have suggested, in combination with the other references, the inventions of Applicants' claims 15 and 18 and, therefore, cannot render obvious claims 15 and 18.

D. Conclusion:

Applicant respectfully requests that a timely Notice of Allowance for claims 1 - 21 and 23 be issued in this case.

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